



Parkland College
Arba Minch
Short Term Trainings Programs

The SaTScan Software

About the Course

SaTScan is a free software that analyzes spatial, temporal and space-time data using the spatial, temporal, or space-time scan statistics.

This training course is a step-by-step training for the SaTScan™ software. This course also demonstrate that analyzes spatial, temporal and space-time data using the spatial, temporal, or space-time scan statistics to detect spatial or space-time disease clusters, and to determine if they are statistically significant. The only prerequisite knowledge is a basic understanding of statistics (Scan-statistic) and epidemiology.

Course Duration

- 7 Days at 8 hours a day

Course Learning Outcomes

After studying this course, you should be able to:

- Understand how to start SaTScan
- Understand the SaTScan Software application
- Understand the SaTScan Software parameters
- Enter basic data into SaTScan
- Run SaTScan and analyse data
- Interpret SaTScan outputs

Course Outline

1. Introduction to SaTScan

- 1.1 The Purpose of SaTScan
- 1.2 SaTScan with Google Earth
- 1.3 Data Types and Methods
- 1.4 SaTScan Software Download and Installation

2. Launching the SaTScan Software

- 2.1 Input Data
- 2.2 SaTScan Import Wizard
- 2.3 Basic SaTScan Features
- 2.4 Advanced Features
- 2.5 Running SaTScan
- 2.6 Results of Analysis and Outputs
 - 2.6.1 KML Geographical Output File
 - 2.6.2 Shapefile Geographical Output



- 2.6.3 Temporal Graphs HTML File
- 2.6.4 Cluster Information File
- 2.6.5 Stratified Cluster Information File
- 2.6.6 Location Information File
- 2.6.7 Risk Estimates for Each Location File
- 2.6.8 Simulated Log Likelihood Ratios File

3. Covariate Adjustments

- 3.1.1 Covariate Adjustment Using the Input Files
- 3.1.2 Covariate Adjustment Using Statistical Regression Software
- 3.1.3 Covariate Adjustment Using Multiple Data Sets

4. Spatial and Temporal Adjustments

- 4.1.1 Adjusting for Temporal Trends
- 4.1.2 Adjusting for Day-of-Week Effects
- 4.1.3 Adjusting for Purely Spatial Clusters
- 4.1.4 Adjusting for Known Relative Risks

5. Handling Missing Data

- 5.1 Missing Data for some locations and times

Target Participants

The intended audience for this training activity is Statisticians, Biostatisticians and Researchers including Epidemiologist, Biologists, Clinicians, Laboratory and Health professionals with the following prerequisite.

Prerequisites

No prior working knowledge of SaTScan software is required for this course. Understanding of the basic statistical/ bio-statistical concepts, basic computer operational skills and data intuition are required.

Training Approach

This training on SaTScan Software is delivered by our seasoned trainers who have vast experience as expert professionals using SaTScan Software. The course is mainly focused on step-by-step practice for SaTScan Software and taught through a mix of practical activities, theory and group works.

Training manuals and additional reference materials are provided to the participants.

Certification

Upon successful completion of this course, participants will be issued with a certificate.

Tailor-Made Course

We can also do this as a tailor-made course to meet organization-wide needs. A training needs assessment will be done on the training participants to collect data on the existing skills, knowledge gaps, training expectations, and tailor-made needs.